REMARKS

Claims 1, 5-20, 22-34, 47-50, and 52-56 are pending. Claims 11-19, 23-24, and 30-34 are allowed. Claims 25-29, 47-50, and 52-56 are rejected under 35 U.S.C. § 101. Claims 1, 5-9, 20, and 22 are rejected under 35 U.S.C. § 103(a). Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Claims 1, 20, 25, and 47 are currently amended.

Examiner has rejected claims 25-29, 47-50, and 52-56 under 35 U.S.C. § 101 as directed to a process, which consists solely of mathematical operations. The Supreme Court has held, Congress chose the expansive language of 35 U.S.C. 101 so as to include "anything under the sun that is made by man." *Diamond v. Chakrabarty*, 447 U.S. 303, 308-09, 206 USPQ 193, 197 (1980). Accordingly, section 101 of title 35, United States Code, provides:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Federal courts have held that 35 U.S.C. 101 does have certain limits. First, the phrase "anything under the sun that is made by man" is limited by the text of 35 U.S.C. 101, meaning that one may only patent something that is a machine, manufacture, composition of matter or a process. See, e.g., *Alappat*, 33 F.3d at 1542, 31 USPQ2d at 1556; *Warmerdam*, 33 F.3d at 1358, 31 USPQ2d at 1757 (Fed. Cir. 1994). Here, Examiner admits that claims 25-29, 47-50, and 52-56 are directed to a process.

Second, 35 U.S.C. 101 requires that the subject matter sought to be patented be a "useful" invention. Accordingly, a complete definition of the scope of 35 U.S.C. 101, reflecting Congressional intent, is that any new and useful process, machine, manufacture or composition of matter under the sun that is made by man is the proper subject matter of a

patent. The instant specification discloses the importance of wireless communications. (page 1, lines 5-10). In particular, the instant specification discloses a "base station periodically broadcasts signals that indicate the number and position of reserved time slots within a communications frame for initialization, to each of the wireless units in its area that are not currently connected. These broadcast signals are received by each wireless unit, so that, in one of these time slots, the unit may send a signal to the base station to request a connection. This request signal is commonly referred to as a "preamble," following which the message part of the transmission is communicated." (page 3, lines 4-10). The preamble, therefore, is at least useful and perhaps essential to cotemporary wireless communications. Claims 25-29 are directed to "A method of using a preamble." Claims 47-50, and 52-56 are directed to "A method of using a preamble from a remote transmitter." Thus, claims 25-29, 47-50, and 52-56 are patentable subject matter under 35 U.S.C. § 101.

Moreover, a process is statutory if it requires physical acts to be performed outside the computer independent of and following the steps to be performed by a programmed computer, where those acts involve the manipulation of tangible physical objects and result in the object having a different physical attribute or structure. *Diamond v. Diehr*, 450 U.S. at 187, 209 USPQ at 8. Thus, if a process claim includes one or more post-computer process steps that result in a physical transformation outside the computer (beyond merely conveying the direct result of the computer operation), the claim is clearly statutory. (MPEP § 2106).

Referring to Figure 1 of the instant specification, base station 12 and wireless units UE of cell 14 are computers typically including a digital signal processor 32 and microcontroller 36 (Figure 2). Within cell 14, transmission of a preamble by a UE evokes a response by base station 12 as is well known by those of ordinary skill in the art. Claims 25-29, as amended, specifically recite "A method of using a preamble, comprising the steps of . . . transmitting the preamble to a remote unit; and receiving an acknowledgement from the remote unit." These post-computer process steps result in a physical transformation outside the computer and are, therefore, patentable under 35 U.S.C. § 101.

Likewise, a base station 12 receiving and decoding a preamble from a remote UE transmits an acknowledgement to evoke a subsequent transmission from the UE. Claims 47-50 and 52-56, as amended, recite "A method of using a preamble from a remote transmitter, comprising the steps of . . . acknowledging the preamble to the remote transmitter to establish communications." Such post-computer process activity at a remote base station or UE falls within the foregoing safe harbor provision (MPEP § 2106) and renders claims 25-29, 47-50, and 52-56 patentable subject matter under 35 U.S.C. § 101.

Claims 1, 5-9, 20, and 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over applicants' admitted prior art in view of Scott et al. (U.S. Pat. No. 6,154,486). Independent claims 1 and 20 recite "selecting one of a plurality of orthogonal codes for the preamble; generating a spread code using the selected orthogonal code repeated a selected number of repetitions; multiplying the spread code by a scrambling code associated with the base station, wherein the spread code has a length equal to a length of the scrambling code."

Neither applicants' admitted prior art nor Scott et al. disclose the step of "multiplying the spread code by a scrambling code associated with the base station, wherein the spread code has a length equal to a length of the scrambling code" as required by claims 1 and 20. Examiner agrees. (Office Action 11/4/04, page 4, last paragraph). Examiner further agrees that De Gaudenzi et al. may not be properly combined with Scott et al. in view of the present rejection. Thus, for all the foregoing reasons, applicants respectfully submit that claims 1, 8, 9, and 20 are patentable under 35 U.S.C. § 103(a).

In view of the foregoing, applicant respectfully requests reconsideration and allowance of claims 1, 5-9, 20, 22, 25-29, 47-50, and 52-56. If the Examiner finds any issue that is unresolved, please call applicants' attorney by dialing the telephone number printed below.

Respectfully submitted,

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